Psychonomic Science

Editor: CLIFFORD T. MORGAN
Staff: EVELYN BRADLEY
SHIRLEY DODS
ANNE DOSSETT
SALENA KERR
JEAN S. MORGAN
S. GORDON SQUIRES

Volume 3
1965

Published by

PSYCHONOMIC PRESS, BOX 38, 295 PINE AVE., GOLETA, CALIFORNIA 93017

Copyright © 1965 by Psychonomic Press

Contents of Volume 3

ARTICLES, ABSTRACTS, COMMENTS, REPLIES

PERCEPTION AND PERFORMANCE

Time perception of short intervals during finished, unfinished and empty task situations by N. E. Hawkins and M. E. Meyer, 473

Inversion effects in the tachistoscopic perception of number sequences by A. Koestler and J. J. Jenkins, 75

On the independence assumption in the span of perception by R. B. McCall, 545

The relation between score on the stimulus variation scale and autokinetic movement by R. C. Reinehr, 169

PSYCHOPHYSICS

Effect of context on ratings of personality traits by N. H. Anderson and A. K. Lampel, 433

Binary estimation by J. C. Baird and C. W. Vernon, 469

End anchor effects in the discriminability of physical and social stimuli by H. Miller and J. Bieri, 339

Pleasantness of odors as a function of the immediate stimulus context by A. Sandusky and A. Parducci, 321

Discrimination of hefted weights: Effect of stimulus duration by R. W. Sekuler and J. A. Bauer, Jr., 255

Seen and felt length by M. Teghtsoonian and R. Teghtsoonian, 465

Improvement of absolute pitch naming by M. Terman, 243

Uni-polar or bi-polar scales of judgment by M. E. Tresselt, 365

The effect of instruction on a bi-polar scale by M. E. Tresselt, 566

COLOR VISION

Adaptation of humans to colored split-field glasses by T. L. Harrington, 71

Hue detectability thresholds as a function of chronological age by R. H. Pollack, 351

VISUAL MASKING

A forced-choice indicator for use with Werner's discring pattern in studies of backward masking by E. G. Heckenmueller and W. N. Dember, 167

Paradoxical brightening of a masked black disc by E. G. Heckenmueller and W. N. Dember, 457

A u-shaped backward masking function in vision: A partial replication of the Weisstein and Haber study with two ring sizes by M. S. Mayzner, M. H. Blatt, W. H. Buchsbaum, R. T. Friedel, P. E. Goodwin, D. Kanon, A. Keleman and W. D. Nilsson, 79

Backward figural masking as a function of chronological age and intelligence by R. H. Pollack, 65

A comparison of forward and backward masking by P. H. Schiller and M. C. Smith, 77

Spatial determinants of visual masking: Effects of mask size and retinal position by J. F. Sturr, T. E. Frumkes and D. M. Veneruso, 327

FORM PERCEPTION

Effects of a transphenomenal parameter on the visual perception of form by E. A. Alluisi and T. J. Hall, 543

The determinants of perceptual unity in infancy by T. G. R. Bower, 323

Disorientation of forms: An examination of Rock's theory by L. G. Braine, 541

Effects of practice on sex-related differences in performance on Embedded Figures by A. G. Goldstein and J. E. Chance, 361

Pre-knowledge of isolation as a prerequisite for the isolation-effect by E. R. Harcum, 443

Repetition redundancy and visual form discrimination by G. R. Lockhead, 319

Reply by C. W. Eriksen and J. S. Lappin, 366

Deficits in recognition of random shapes with changed visual fields by D. S. Lordahl, K. M. Kleinman, B. Levy, N. A. Massoth, M. S. Pessin, M. Storandt, R. Tucker and J. M. Vanderplas, 245

Visual noise causes tunnel vision by N. H. Mackworth, 67

Size estimation and the size of the measuring unit by H. R. Schiffman, 479

WORD RECOGNITION

The effect of nonpatterned sensory deprivation on visual recognition thresholds by C. M. Friel and L. Derogatis, 163

The effect of irrelevant context on tachistoscopic recognition by W. A. Winnick and P. Binstock, 247

SPACE PERCEPTION

Rapid adaptation in the constancy of visual direction with active and passive rotation by H. Wallach and J. H. Kravitz, 165

Selective intermanual transfer of adaptive effects during adaptation to prism by S. C. McLaughlin and J. L. Bower, 69

Adaptation to contradictory information from vision and touch by I. Rock, A. Mack, L. Adams and A. L. Hill, 435

HEARING

Ear preference and abstractness in dichotic listening by J. G. Borkowski, O. Spreen and J. Z. Stutz, 547

Auditory sensitivity after prolonged visual deprivation by P. D. Duda and J. P. Zubek, 359

SKIN SENSES

The contribution of anxiety to the laboratory investigation of pain by R. Lepanto, W. Moroney and R. Zenhausern, 475

The effect of number of pulses on vibrotactile thresholds by R. T. Verrillo, 73

Vibrotactile threshold and pulse polarity by R. T. Verrillo, 171

PERFORMANCE

Heart rate and deprivation in humans by D. Asdourian and M. Rimbey, 251

The relation between intelligence and critical flicker fusion by J. R. Cautela and D. H. Barlow, 559

Adaptation with constant and variable delay in auditory feedback by S. Fillenbaum, 45

Adams' bisensory discrete tracking task and the psychological refractory period: A comment by R. S. Nickerson, 87

Reply by J. A. Adams, 54

The effect of music on the activity level of children by M. Rieber, 325

Conceptual structure, information load and perceptual complexity by S. Streufert and M. J. Driver, 249

Erratum, 324

PREFERENCE

Preference for photographs as a function of frequency of presentation by W. Wilson and H. Nakajo, 577

Esthetic preference as a function of pattern information by D. D. Dorfman, 85

REACTION TIME

Behavioral hypotheses and choice reaction time by I. H. Bernstein and C. Reese, 259

Role of adaptation level in stimulus intensity dynamism by H. G. Murray and D. L. Kohfeld, 439

Frequency and latency of response to offset-onset sequences of cutaneous stimulation by T. G. Sticht and T. E. Sitterley, 425

ATTENTION AND SCANNING

Visual selection: Scanning vs filtering by T. G. R. Bower, 561

Eye-movement patterns during visual information processing by J. D. Gould and A. Schaffer, 317

Identification of sequential auditory and visual stimuli by A. S. Kamlet, 419

Deterioration of signal detectability during a vigilance task as a function of background event rate by J. F. Mackworth, 421

HUMAN LEARNING AND THINKING

CONDITIONING

The influence of UCS upon the acquisition of the conditioned eyelid response by K. R. Burstein (Vol. 2, 303-304)

Comment by J. W. Moore, 230

Terrace's "Fading-in" of CS- in differential eyelid conditioning by S. R. Coleman, F. L. Newman and J. W. Moore, 467

Acquisition of the conditioned eyelid response under different ready-signal conditions by R. H. Dufort and H. A. Rollins, 81

Component to compound stimulus transfer by W. Grings, T. Uno and J. Fiebiger, 63

Differential eyelid conditioning of voluntary form responders by C. W. Hickok, D. A. Grant and J. A. North, 583

Operant eyelid conditioning of severely retarded children by J. D. Keehn, 585

The effects of CR-contingent UCS presentations in eyelid conditioning by G. E. MacDonald, G. J. Levine and A. Amsel, 225

The effects of percentage reinforcement, UCS duration, and experience with procedure on the conditioned eyelid response by H. L. Meiselman and J. W. moore, 335

Intertrial stimuli and differentiation of the conditioned eyelid response by J. W. Moore and F. L. Newman, 341

Extended differential conditioning of the classically conditioned eyeblink reflex by W. R. Muir and W. N. Runquist, 581

The effects of task instructions and instructed or uninstructed CS on the eyelid response by J. J. Porter and P. C. Senkowski, 257

An application of a three-state all-or-none model to human eyelid conditioning data by W. F. Prodasy, 349

Inhibitory effects of post trial stimulation on classical eyelid conditioning under partial reinforcement by W. N. Runquist and J. F. Evans, 579

Individual differences in human eyelid conditioning by K. W. Spence, 333

DISCRIMINATION LEARNING

Stimulus factors in auditory identification learning by A. M. Barch and J. R. Levine, 147

Some effects of light on sound intensity generalization by D. D. Dorfman and R. Miller, 437

Two choice discrimination learning as a function of stimulus similarity along an auditory intensity dimension by J. W. Moore and J. Halpern, 441

SERIAL LEARNING

The length-difficulty law of serial learning: An empirical function and a theoretical derivation by W. Bogartz and A. Headrick, 357

Erratum, 428

Serial learning in a continuous serial list by K. Breckenridge, D. T. Hakes and R. K. Young, 139

Comments on the hypothesis of implicit serial-position cues by G. Keppel, 471

Reply by K. Breckenridge, D. T. Hakes and R. K. Young, 474

The effect of order of presentation on learning of "unrelated" words by E. Tulving, 337
Effects of age and IQ on rate of learning and pattern of acquisition of lists of trigrams by A. B. Woodruff and H. L. Pielstick, 145

PAIRED-ASSOCIATE LEARNING

Comparison of recall and anticipation paired-associate procedures within mixed aurally-presented lists by W. F. Battig and R. D. Wu, 233
Repetition and associative learning by J. R. Binford and T. Montgomery, 143
Persistence of acquired meaning in semantic conditioning by J. P. Das and A. K. Mitra, 83
A stimulus generalization explanation of the serial position effect by H. D. Fishbein, C. Shackney and D. Sinclair, 563
Learning of inverted and normally oriented faces in children and adults by A. G. Goldstein, 447
Stimulus articulation and backward learning by D. T. Hakes, 47
The effect of monetary incentive in paired associate learning using an absolute method by W. Harley, Jr., 141
The effects of training procedure, response availability, and response meaningfulness in multiple-choice paired-associate learning by J. R. Hawker, 329
The effects of training procedure, response similarity, and number of response alternatives in multiple-choice paired-associate learning by J. R. Hawker, 331
Subliminal practice effects in verbal learning by T. Hayashi, 453
Effects of shock, ego-threat, and neutral conditions on affective experience during paired-associates learning by M. Katahn and D. F. Pagano, 551
Natural language mediators in paired associate learning by H. O. Kiess and W. E. Montague, 549
Effects of anxiety and stress on children's paired-associate learning by L. P. Lipsitt and W. C. Spears, 553
A classification of associative strategies in paired-associate learning by C. J. Martin, F. J. Boersma and D. L. Cox, 455
The role of associative strategies in the acquisition of P-A material: An alternate approach to meaningfulness by C. J. Martin, D. L. Cox and F. J. Boersma, 463
Satiation treatment and learning of competitional and non-competitional pairs of a paired-associate task by A. P. Purohit, 477
Mediation speed, reported mediators and recall as related to presentation rate by W. N. Runquist, 51
The effect of forward and backward implicit verbal chaining on paired-associate learning by R. L. Taylor, 427
Acquisition as a function of S-R frequency of occurrence under ORM, OSM, or S-R associative conditions by B. Watts and J. F. Voss, 49

REINFORCEMENT

GSR extinction following differential reinforcement by R. S. Beecroft, 61
A methodological note on a punishing stimulus for children by P. A. Fried, 62
A further examination of collateral behavior in humans by J. J. Randolph, 227

MEMORY

Acoustic factors versus language factors in short-term memory by R. Conrad, P. R. Freeman and A. J. Hull, 57
"Primary memory": The effects of redundancy upon digit repetition by K. M. Dallett, 237
Short-term memory and presentation rates with young children by D. N. Hansen, 253
Serial learning without primacy or recency effects by E. R. Harcum and E. W. Coppage, 571
Performance of deaf and hearing children on a short term memory task by J. S. Hartman and L. L. Elliott, 573
Classification and aural coding in short-term memory by D. L. Hintzman, 161
A repaired S_1-R_2 and S_2-R_1 transfer surface by J. P. Houston, 343
Short-term memory using a visual shadowing precedure by D. LaBerge and S. Winokur, 239
A further study of short-term retention and presentation rate by M. S. Mayzner and K. M. Schoenberg, 159
Can set influence retrieval? by R. B. McCall, 575
Effects of retention interval activity on short-term memory in retardates by R. Metzger, S. Simon and R. Ditrichs, 55
Erasure or partitioning in short-term memory by W. S. Muther, 429
Event memory in probability learning by A. S. Reber and R. B. Millward, 431
Effect of item length and number of different elements on immediate memory by J. R. Williams and D. L. Fish, 353
R-S recall as a function of opportunity for intratrial rehearsal by K. A. Wollen and G. G. Gallup, Jr., 157

MEDIATION

Effect of contextual meaningfulness on rated association value (m'), number of associations (m), and free recall by H. Amster and W. F. Battig, 569
Pseudomediation: A reply and more data by B. Earhard and G. Mandler, 137
Verbal mediation in reverse association: The role of temporal factors by R. A. Kulp and J. A. Robinson, 423

VERBAL PROCESSES

The frequency of grammatical classes in the production of verbal strings under two response sets by M. Arlinsky and W. Epstein, 555
Inferring a grammar from responses: Discussion of Gough and Segal's comment by M. D. S. Braine, 241

Response entropy as a function of the affective quality of the stimulus by P. Cramer, 347
The interaction of syntactical structure and learning instructions by W. Epstein and M. Arlinsky, 59
The effect of familiarization on associative latency by W. B. Gillooly, 235
Comment on "The insufficiency of a finite state model for verbal reconstructive memory" by P. B. Gough and E. M. Segal, 155
Learning of letter pairs as a prototype of first language learning by E. M. Segal and T. G. Halwes, 451
Vicarious learning of common and uncommon associations in children by S. Simon, R. Ditrichs and N. Jamison, 345
Random generation: Number of symbols to be randomized and time per response by P. A. Warren and R. E. Morin, 557

PROBLEM SOLVING AND DECISION BEHAVIOR

Problem difficulty as a function of relative frequency of correct responses by R. L. Dominowski, 417
The process of prediction as a function of the correlation between two scaled variables by C. W. Gray, C. B. Barnes and E. F. Wilkinson, 231
Order of solutions in ambiguous anagrams as a function of word frequency of the solution words by T. J. Johnson and A. P. Van Mondfrans, 565
Hypothesis behavior in a multidimensional oddity problem by D. S. Lordahl, 229
Solving words as anagrams: An issue re-examined by M. S. Mayzner and M. E. Tresselt, 363
The utility of variability in probability learning by D. M. Messick, 355
Language and thinking: The interaction of naming with relevance and concreteness by H. B. Ranken and W. J. Dowling, 459
Language and thinking: The interaction of amount of pretraining and relevance in the effect of naming on problem solving by H. B. Ranken and H. S. Wang, 461
Problem-solving set as a function of number of reinforcements by W. S. Ray, 567
Modified learning set performance as a function of age by R. J. Weber, 153

SOCIAL PROCESSES

Effect of number of prior reinforcements on social convergence by C. M. Beach and K. E. Lloyd, 149
Persons as mediators: A three-stage paradigm by S. M. Berger, 53
Leadership selection when uncertainty is minimal by A. Binder, B. R. Wolin and S. J. Terebinski, 367
The effect of topic importance and attitude similarity-dissimilarity on attraction in a multistranger design by D. Byrne and D. Nelson, 449
Birth order, aesthetic preference, and volunteering for an electric shock experiment by R. Eisenman, 151

PHYSIOLOGICAL PSYCHOLOGY

The effect of auditory restriction during pregnancy on offspring survival by S. Levine and D. L. King, 275
Response of earthworms to light as measured by the GSR by R. F. Morgan, S. C. Ratner and M. R. Denny, 27
A method of measuring brain lesions by R. K. Thomas, Jr., and L. J. Peacock, 184

MOTIVATION AND EMOTION

Appetite for sugar and fat in the thiamine deficient rat by H. R. Behrman and O. Maller, 523
Taste sensitivity of eating elicited by chemical stimulation of the rat hypothalamus by D. A. Booth and D. Quartermain, 525
Some effects of copulatory experience on postcastration mating behavior in the male hamster by B. N. Bunnell and M. E. Kimmel, 179
Copulatory behavior of male hamsters as a function of time since androgen withdrawal by B. N. Bunnell and C. K. Flesher, 181
Food intake following blood mixing of hungry and satiated rats by J. D. Davis, 177
EEG adaptation during prolonged periods of water deprivation by R. M. Glantz, 379
Immediate acceptance of sodium salts by sodium deficient rats by P. J. Handal, 315
Formalin induced sodium appetite: Dose-response relationships by P. J. Handal, 511
Reinforcement of intracranial self-stimulation by licking by S. B. Holstein and A. G. Hundt, 17
Ganglia removal and photically driven activity in the earthworm (L. terrestris) by H. V. S. Peeke, M. J. Herz and E. J. Wyers, 187
The utility of the microcoulomb as a predictor of reinforcement value in electrical self-stimulation of the rat brain by J. E. Ridgway, S. S. Pliskoff and R. W. McIntire, 109
Effects of unilateral and bilateral spreading depression on water intake by A. M. Schneider, 287
Influence of neonatal treatment on maternal behavior: A confounding variable by R. D. Young, 295

DISCRIMINATION

Cues utilized by normal and posterior-neodecorticate rats in the Yerkes brightness discrimination task by M. Goodale and R. M. Cooper, 513
Some consequences of perinatal lesions of the visual cortex in the cat by A. B. Wetzel, V. E. Thompson, J. A. Horel and P. M. Meyer, 381
Position response preference following unilateral brain ablation in monkeys by D. C. Kruper, R. A. Patton and Y. D. Koskoff, 195

LEARNING

Test anxiety, pulse rate and learning by A. J. Judson and G. Gelber, 397

Disruption of position habit reversal by septal stimulation by P. Kasper, 111
Erratum, 282

A further study of amino acid analysis and conditioning of planarians by F. J. King, F. T. Crawford and R. L. Klingaman, 189

The maze behavior of hippocampectomized rats under massed and distributed trials by M. C. Madsen and D. P. Kimble, 193

The effect of distracting stimuli on the runway performance of limbic damaged rats by A. C. Raphelson, R. L. Isaacson and R. J. Douglas, 483

Selective resistance of performance on a schedule of reinforcement to disruption by forebrain lesions by G. S. Reynolds and A. J. Limpo, 35

AVOIDANCE

Intracranial stimulation as an avoidance or escape response by G. G. Ball and D. W. Adams, 39

Onset vs. recovery in the aversive effects of electroconvulsive shock by R. G. Dawson and G. T. Pryor, 273

Dissociation of conditioned emotional and avoidance responses due to ECS by L. K. Gerbrandt, 385

Decrements in one-way avoidance learning following septal lesions in rats by J. Kenyon and E. E. Krieckhaus, 113
Comment by I. Zucker, 298
Reply by E. E. Krieckhaus, 310

Level of Maternal Stress during two pregnancy periods on rat offspring behaviors by M. Morra, 7

Planaria: Interspecific transfer of a conditionability factor through cannibalism by R. S. Ragland and J. B. Ragland, 117

Positively reinforcing brain shock as a CS in the acquisition and extinction of a shuttle box avoidance response by R. M. Stutz and D. Asdourian, 191

Bilateral spreading depression and avoidance learning in rats by G. Winocur, 107

MEMORY

Retroactive amnesia from electroconvulsive shock: Consolidation disruption or interference? by H. E. Adams and L. J. Peacock, 37

Electroconvulsive shock and the response: ECS interval by H. E. Adams and L. J. Peacock, 535

Decreased resistance to extinction of a running response following electroconvulsive shock by F. B. Colavita, 487

Memory as influenced by a single electroconvulsive shock (Abstract) by J. A. Corson, 44

Aspects of the delayed alternation deficit produced by electrical stimulation in monkeys by C. G. Gross, 501

Failure of spreading depression to produce retrograde amnesia by I. Kupfermann, 43

Impairment and perseveration in delayed tasks due to bilateral lesions of the caudate nucleus in rats by W. L. Mikulas and R. L. Isaacson, 485

Hippocampal lesions and delayed alternation in the rat by R. J. Racine and D. P. Kimble, 285

DRUG AND CHEMICAL EFFECTS

Studies of the amnesic properties of scopolamine by P. L. Carlton and J. R. Vogel, 261

Effects of morphine sulfate on the extinction of conditioned escape behavior in the rat by L. G. Collins, 31

Drug facilitation of avoidance conditioning as a function of pretraining by B. A. Doty and L. A. Doty, 405

Effects of LSD-25 on bar-pressing behavior in the hooded rat by E. L. Gardner, 507

The influence of d-amphetamine, benactyzine, and chlorpromazine on performance in an auditory vigilance task by M. Loeb, G. R. Hawkes, W. O. Evans and E. A. Alluisi, 29

Effects of ethanol and partial reinforcement upon runway acquisition by P. B. Nelson and K. A. Wollen, 135

The effect of chlorpromazine on the depression effect by W. A. Roberts and L. Pixley, 407

The effects of chemical stimulation in dorsal midbrain tegmentum on self-stimulation in hypothalamus and septal area by A. Routtenberg, 41
Erratum, 282

Determinants of polydipsia: V. Effect of amphetamine and pentobarbital by E. F. Segal, D. L. Oden and S. A. Deadwyler, 33

Effects of amphetamine on the monkey's visual threshold by J. B. Thurmond, 115

ANIMAL BEHAVIOR

Operant control of vocal behavior in the monkey Cebus albifrons by S. A. Myers, J. A. Horel and H. S. Pennypacker, 389

Primacy and recency in imprinting by S. M. Kaye, 271

ACTIVITY

Activity as a function of diet: I. Spontaneous activity by G. H. Collier, R. L. Squibb and F. Jackson, 173

Activity as a function of diet: II. Instrumental activity by G. H. Collier, R. L. Squibb and F. Jackson, 175

Effects of the A^y substitution on mouse activity level: Spurious pleiotropy by J. D. Hawkins, 269

Persistent genotypic differences in mouse activity under unusually varied circumstances by D. D. Thiessen, 1

EMOTION

Aggression in rats as a function of frustrative nonreward in a straight alley by G. G. Gallup, Jr., 99
Erratum, 220

The effects of pre-shock and handling on the startle response in the rat by J. H. Korn and K. E. Moyer, 409

Behavioral effects of isolation in the rat by K. E. Moyer and J. H. Korn, 503

MOTIVATION

Determinants of polydipsia: VII. Removing the drinking solution midway through DRL sessions by S. A. Deadwyler and E. V. Segal, 185

The effects of maintenance diet on adaptation to food or water deprivation schedules in the rat by G. I. Hatton and L. I. O'Kelly, 267

Microsleep responses in the rat by F. Johnson and W. B. Webb, 499

Water consumption: Emotionally produced facilitation or suppression? by S. Levine, 105

A tamper-proof fluid dispenser and drinkometer for monkeys by J. H. Mendelson and N. K. Mello, 387

An investigation of drive summation in a water runway by J. B. Rollins, R. K. Thomas and N. R. Remley, 183

Determinants of polydipsia: IV. Free-reinforcement schedules by E. F. Segal, D. L. Oden and S. A. Deadwyler, 11

Determinants of polydipsia: VI. Taste of the drinking solution on DRL by E. F. Segal and S. A. Deadwyler, 101

Eating behavior: Social facilitation or social inhibition? by H. P. Shelley, 521

Tail, paw and pup retrieving in the rat by W. E. Wilsoncroft and D. V. Shupe, 494

PREFERENCE

Taste preferences measured by tongue licks and bar presses as a function of age in the rat by D. W. Bloomquist and D. K. Candland, 393

Lick rates in cats by R. W. Schaeffer and R. Huff, 377

Incentive value of saccharin as a function of concentration and deprivation conditions by R. Weinstock, R. T. White and R. C. Bolles, 103

VISION

Blur as a critical factor in the visual cliff by D. B. Taylor, D. Milne and D. K. Candland, 395

Depth perception in the dark-reared rat as a function of time in the dark by R. D. Walk, S. Trychin, Jr. and B. Z. Karmel, 9

A preference technique to investigate visual acuity in the rat by R. D. Walk, 301

Visual acuity of "Saimiri sciureus" by L. S. Woodburne, 307

CONDITIONING

The conditioned licking response in rats as a function of the CS-UCS interval by R. Boice and M. R. Denny, 93

Cardiac conditioning in the albino rabbit using 3 CS-UCS intervals by G. E. Deane, 119

A method for study of the conditioned pinna response in the albino rabbit by R. E. Lubow and R. Markman, 509

Classical conditioning in the cat as a function of the CS-US interval by D. McAdam, J. R. Knott and J. Chiorini, 89

Effects of alternating classical conditioning and extinction sessions on the conditioned nictitating membrane response of the rabbit by M. Smith and I. Gormezano, 91

DISCRIMINATION LEARNING

Some effects of wavelength discrimination on stimulus generalization in the goldfish by L. L. Ames and M. Yarczower, 311

Attention, discrimination learning, and observing responses by D. Bindra and A. Moscovitch, 223

Transposition of a stimulus generalization gradient along an auditory intensity continuum by S. Blue and F. W. Hegge, 201

A technique for demonstrating the inhibitory function of S^{Δ} by J. M. Cornell and H. Strub, 25

Stimulus control of a differentiated operant by W. W. Cumming and D. A. Eckerman, 313

The overlearning reversal effect in monkeys provided a salient irrelevant dimension by M. R. D'Amato, 21

The monotonicity of the negative stimulus during learning by J. A. Deutsch and G. B. Biederman, 391

Anomalous transfer effects after shape discrimination training in the rat by P. C. Dodwell, 97

Comment: Comparisons of reversal and nonreversal shifts by P. D. Eimas, 445

Reply by T. J. Tighe and L. S. Tighe, 446

Competing behavior and observing responses by S. B. Kendall, 279

An observing response analysis of fixed ratio discrimination by S. B. Kendall, 281

The scheduling of discriminative cues in successive discrimination learning by J. Koehler, Jr., 293

Perceptual selectivity in immature and adult rats by W. A. Roberts, 491

The influence of cue position and pretraining on successive discrimination learning in the rat by L. M. Raskin, 221

The relative difficulty of reversal and dimensional shifting as a function of overlearning by A. F. Schade and M. E. Bitterman, 283

Pretraining performance of three species of macaque monkeys by A. M. Schrier, 517

A note on interresponse time distributions during generalization testing by W. R. Sewell and S. B. Kendall, 95

Interocular interaction of conflicting discrimination habits in the albino rat: A preliminary report by C. L. Sheridan, 303

Learning and transfer of oddity as a function of apparatus and trials per problem by P. N. Strong, Jr., 19

Geometrical shape discrimination by "Saimiri sciureus" by L. S. Woodburne, 309

Discrimination with variable interval and continuous reinforcement schedules by M. D. Zeiler and A. E. Price, 299

MAZE LEARNING

Noncorrected-nonreward during widely-spaced T-maze probability learning by K. N. Clayton, 413

The relationship between a spatial gradient for exploratory behavior and latent learning by R. E. Lubow, 219

Proactive inhibition involving maze habits by S. Rickard, 401

Inter-phase time intervals in Seward's latent learning experiment by K. M. Smith, G. Brodsky and T. A. Mabel, 197

Response variability in the quail (Coturnix coturnix Japonica) by M. E. Thompson, M. Estell and L. A. Loomis, 519

AVOIDANCE AND PUNISHMENT

Interactive effects of shock intensity and delay of reinforcement on escape conditioning by R. W. Bell, J. C. Noah and J. R. Davis, Jr., 505

The acquisition of bar press avoidance as a function of shock intensity by R. C. Bolles and J. A. Warren, Jr., 297

Suppression of a learned response by punishment when an alternative learned response is provided by J. L. Bruning, B. L. Kintz, and M. K. Morgret, 399

Probability learning to escape from shock by M. Cole, G. L. Belenky, R. C. Boucher, R. N. Fernandez and D. L. Myers, 127

Intertrial movements during distributed shock-escape conditioning by H. W. Coppock and J. G. Osborne, 123

Response competition in conditioned avoidance by J. T. Greene and L. J. Peacock, 125

Effect of preliminary training on the maintenance of an avoidance response by H. M. B. Hurwitz, 529

Effects of shock intensity on nondiscriminative avoidance learning of rats in a shuttlebox by J. L. Johnson and R. M. Church, 497

Operant avoidance in a rhesus monkey (Macaca mulatta) during the first month of life by H. Kaye and J. Cox, 371

Acquisition and extinction of shuttlebox avoidance with complex stimuli by D. J. Kostanek and J. M. Sawrey, 369

Choice of a warning signal or none in several unavoidable-shock situations by J. S. Lockard, 5

Temporal avoidance conditioning in the rabbit by R. A. Lockhart and D. C. Steinbrecher, 121

A shock harness for rats: Resistance as a function of shock intensity by N. K. Mello and J. H. Mendelson, 3

The effects of simultaneous CS/US versus .5 seconds CS/US interval on the acquisition of a conditioned escape response by R. L. Schalock, 493

Climbing suppression: Passive avoidance in the turtle by I. M. Spigel and K. Ellis, 215

Recovery from punishment of bar pressing maintained on fixed and variable interval reward schedules by L. H. Storms, G. Boroczi and W. E. Broen, Jr., 289

Time-out avoidance from a behavior-independent contingency by J. R. Thomas, 217

Factors affecting intersession facilitation of avoidance learning in guinea-pigs by C. D. Webster, C. J. Brimer and I. Evonic, 291

CS directionality and intensity in avoidance learning and extinction by J. C. Whittleton, D. J. Kostanek and J. M. Sawrey, 415

Failure to obtain pseudoconditioning in a shuttlebox by R. S. Witte, 375

Strain differences in avoidance learning by D. J. Zerbolio, J. H. Reynierse and M. R. Denny, 129

REINFORCEMENT

Effects of complete and incomplete reward reduction on a subsequent response by R. J. Barrett, C. S. Peyser and J. H. McHose, 277

Stimulus aftereffects of bar pressing by J. M. Bloom and N. F. Smith, 23

Speed-contingent reinforcement by J. S. Brown and R. B. Horsfall, 305

The effect of goal proximity on acquisition and extinction of a five part response chain by J. L. Bruning, P. W. Becker and R. C. Tucker, 211

Percentage of reward vs. N-length in the runway by E. J. Capaldi and L. R. Stanley, 263

Nonreward confinement duration: The complement of reward magnitude by E. J. Capaldi and H. B. Poynor, 515

The Amsel frustration effect in monkeys by J. W. Davenport and C. I. Thompson, 481

On the "secondary reinforcing" effect of shock for the correct response in visual discrimination learning by H. Fowler and G. J. Wischner, 209

Differential conditioning based on concentration of sucrose reinforcement in rats on a VI schedule by K. P. Goodrich, 213

Bar pressing by the rat as a function of auditory stimulation by J. J. Lavery and P. J. Foley, 199

Visual stimulus complexity and food vs. food alone as rewards for rats by R. B. May, K. L. Beauchamp and S. Pollock, 403

Magnitude of reward in selective learning by J. H. Morrison and J. J. Porter, 531

Partial reinforcement effects in a runway: Between- and within-Ss by W. B. Pavlik, P. L. Carlton and R. A. Hughes, 203

The discrepancy between mean reward and mean reinforcement by C. C. Perkins, Jr., J. C. Levis, S. Sulzbacher and D. F. Berger, 539

Competitive conditioned reinforcement during differential reinforcement of low rates by J. J. Randolph and W. R. Sewell, 411

A factor in the maintenance of behavior by reinforcement by G. S. Reynolds, 15

Runway performance following changes in sucrose rewards by A. J. Rosen and J. R. Ison (Vol. 2, 335-336)

Comment by J. Allison, 92

Reply by J. R. Ison and A. J. Rosen, 100

Laboratory control of behavior without laboratory restraint by R. F. Smith, 537
Intertrial reinforcement and the partial reinforcement effect as a function of number of training trials by K. W. Spence, J. R. Platt and R. Matsumoto, 205
Light-contingent operant behavior in the turtle by I. M. Spigel, 133
Performance under a single alternation schedule of reinforcement at 24-hour intertrial intervals by C. T. Surridge and A. Amsel, 131
Comment by E. J. Capaldi and J. E. Spivey, 110
A "patterning" effect that seems unrelated to after-effects from reward and nonreward by C. T. Surridge and A. Amsel, 373
The positive reinforcing efficacy of a discriminative stimulus established under aversive conditions by W. W. Wenrich, D. D. Cahoon and R. H. Moher, 383
Time out from a fixed ratio schedule by J. R. Thomas and J. A. Sherman, 489

EXTINCTION

Continuous and fixed ratio reinforcement effects in extinction one day and three weeks after acquisition by E. G. Aiken and K. L. Gibson, 527
Latent reacquisition and extinction by A. M. Barch, S. C. Ratner and R. F. Morgan, 495
Latent extinction as a function of partial reinforcement of the running response by J. A. Dyal, 207
The effect of deprivation level on extinction following acquisition under random deprivation conditions by A. W. Greene and H. R. Pollio, 265
A further study of the partial reinforcement effect within-subjects by W. B. Pavlik, P. L. Carlton and P. G. Manto, 533
Patterns of delayed reinforcement and resistance to extinction by E. L. Wike, J. R. Platt and L. Parker, 13

Author Index

A

Adams, D. W., 39
Adams, H. E., 37, 535
Adams, J. A., 54
Adams, L., 435
Aiken, E. G., 527
Allison, J., 92
Alluisi, E. A., 29, 543
Ames, L. L., 311
Amsel, A., 131, 225, 373
Amster, Harriett, 569
Anderson, N. H., 43
Arlinsky, M., 59, 555
Asdourian, D., 191, 251

B

Baird, J. C., 469
Ball, G. G., 39
Barch, A. M., 147, 495
Barlow, D. H., 559
Barnes, Cynthia, 231
Barrett, R. J., 277
Battig, W. F., 233 569
Bauer, J. A. Jr., 255
Beach, Carla, 149
Beauchamp, K. L., 403
Becker, P. W., 211
Beecroft, R. S., 61
Behrman, H. R., 523
Belenky, G. L., 127
Bell, R. W., 505
Berger, D. F., 53
Berger, S. M., 53
Bernstein, I. H., 259
Biederman, G. B., 3
Bieri, J., 33
Binder, A., 37
Bindra, D., 223
Binford, J. R., 143
Binstock, Penny, 247
Bitterman, M. E., 283
Blatt, M. H., 79
Bloom, J. M., 23
Bloomquist, D. W., 393
Blue, S., 201
Boersma, F. J., 455, 463
Bogartz, W., 357, 428
Boice, R., 93
Bolles, R. C., 103, 297
Booth, D. A., 525
Borkowski, J. G., 547
Boroczi, G., 289
Boucher, R. C., 127
Bower, J. L., 69
Bower, T. G. R., 323, 561
Braine, Lila Ghent, 541
Braine, M. D. S., 241
Breckenridge, Kay, 139, 474
Brimer, C. J., 291
Brodsky, G., 197
Broen, W. E. Jr., 289
Brown, J. S., 305
Brunning, J. L., 211, 399
Buchsbaum, W. H., 79
Bunnell, B. N., 179, 181
Byrne, D., 449

C

Cahoon, D. D., 383
Candland, D. K., 393, 395
Capaldi, E. J., 110, 263, 515
Carlton, P. L., 203, 261, 53
Cautela, J. R., 559
Chance, June, 361
Chiorini, J., 89
Church, R. M., 497
Clayton, K. N., 413
Colavita, F. B., 487
Cole, M., 127
Coleman, S. R., 467
Collier, G. H., 173, 175
Collins, L. G., 31
Conrad, R., 57
Cooper, R. M., 513
Coppage, E. W., 571
Coppock, H. W., 123
Cornell, J. M., 25
Corson, J. A., 44
Cox, D. L., 455, 463
Cox, J., 371
Cramer, Phebe, 347
Crawford, F. T., 189
Cumming, W. W., 313

D

Dallett, K. M., 237
D'Amato, M. R., 21
Das, J. P., 83
Davenport, J. W., 481
Davis, J. D., 177
Davis, J. R. Jr., 505
Dawson, R. G., 273
Deadwyler, S. A., 11, 33, 101, 185
Deane, G. E., 119
Dember, W. N., 167, 457
Denny, M. R., 27, 93, 129
Derogatis, L., 163
Deutsch, J. A., 391
Ditrichs, R., 55, 345
Dodwell, P. C., 97
Dominowski, R. L., 417
Dorfman, D. D., 85, 437
Doty, Barbara, 405
Doty, L. A., 405
Douglas, R. J., 483
Dowling, W. J., 459
Driver, M. J., 249, 324
Duda, P. D., 359
Dufort, R. H., 81
Dyal, J. A., 207

E

Earhard, B., 137
Eckerman, D. A., 313
Eimas, P. D., 445
Eisenman, R., 151
Elliott, Lois, 573
Ellis, K., 215
Epstein, W., 59, 555
Eriksen, C. W., 366
Estell, Marge, 519
Evans, J. F., 579
Evans, W. O., 29
Evonic, I., 291

F

Fernandez, R. N., 127
Fiebiger, Josephine, 63
Fillenbaum, S., 45
Fish, D. L., 353
Fishbein, H. D., 563
Flesher, Carol, 181
Foley, P. J., 199
Fowler, H., 209
Freeman, P. R., 57
Fried, P. A., 62
Friedel, R. T., 79
Friel, C. M., 163
Frumkes, T. E., 327

G

Gallup, G. G. Jr., 99, 157, 220
Gardner, E. L., 507
Gelber, G., 397
Gerbrandt, L. K., 385
Gibson, K. L., 527
Gillooly, W. B., 235
Glantz, R. M., 379
Goldstein, A. G., 361, 447
Goodale, M., 513
Goodrich, K. P., 213
Goodwin, P. E., 79
Gormezano, I., 91
Gough, P. B., 155
Gould, J. D., 317
Grant, D. A., 583
Gray, C. W., 231
Greene, A. W., 265
Greene, J. T., 125
Grings, W., 63
Gross, C. G., 501

H

Hakes, D. T., 47, 139, 474
Hall, T. J., 543
Halpern, J., 441
Halwes, T. G., 451
Handal, P. J., 315, 511
Hansen, D. N., 253
Harcum, E. R., 443, 571
Harley, W. Jr., 141
Harrington, T. L., 71
Hartman, Jacqueline, 573
Hatton, G. I., 267
Hawker, J. R., 329, 331
Hawkes, G. R., 29
Hawkins, J. D., 269
Hawkins, Nancy, 473
Hayashi, T., 453
Headrick, Arlene, 357, 428
Heckenmueller, E. G., 167, 457
Hegge, F. W., 201
Herz, J. J., 187
Hickok, C. W., 583
Hill, A. L., 435
Hintzman, D. L., 161
Holstein, S. B., 17
Horel, J. A., 381, 389
Horsfall, R. B., 305
Houston, J. P., 343
Huff, R., 377
Hughes, R. A., 203
Hull, A. J., 57
Hundt, A. G., 17
Hurwitz, H. M. B., 529

I

Isaacson, R. L., 483, 485
Ison, J. R., 100

J

Jackson, Florence, 173, 175
Jamison, Nancy, 345
Jenkins, J. J., 75
Johnson, F., 499
Johnson, J. L., 497
Johnson, T. J., 565
Judson, A. J., 397

K

Kamlet, A. S., 419
Kanon, D., 79

Karmel, B. Z., 9
Kasper, Phyllis, 111, 282
Katahn, M., 551
Kaye, H., 371
Kaye, S. M., 271
Keehn, J. D., 585
Keleman, A., 79
Kendall, S. B., 95, 279, 281
Kenyon, J., 113
Keppel, G., 471
Kiess, H. O., 549
Kimble, D. P., 193, 285
Kimmel, Mary Eve, 179
King, D. L., 275
King, F. J., 189
Kintz, B. L., 399
Kleinman, K. M., 245
Klingaman, R. L., 189
Knott, J. R., 89
Koehler, J., Jr., 293
Koestler, A., 75
Kohfeld, D. L., 439
Korn, J. H., 409, 503
Koskoff, Y. D., 195
Kostanek, D. J., 369, 415
Kravitz, J. H., 165
Krieckhaus, E. E., 113, 310
Kruper, D. C., 195
Kulp, R. A., 423
Kupfermann, I., 43
L
LaBerge, D., 239
Lampel, Anita K., 433
Lappin, J. S., 366
Lavery, J. J., 199
Lepanto, R., 475
Levine, G. J., 225
Levine, S., 105, 275
Levine, J. R., 147
Levis, Jean C., 539
Levy, Barbara, 245
Limpo, A. J., 35
Lipsitt, L. P., 553
Lloyd, K. E., 149
Lockard, Joan S., 5
Lockhart, R. A., 121
Lockhead, G. R., 319
Loeb, M., 29
Loomis, Lou A., 519
Lordahl, D. S., 229, 245
Lubow, R. E., 219, 509
M
Mabel, T. A., 197
MacDonald, G. E., 225
Mack, A., 435
Mackworth, Jane F., 421
Mackworth, N. H., 67
Madsen, M. C., 193
Maller, O., 523
Mandler, G., 137
Manto, P. G., 533
Markman, R., 509
Martin, C. J., 455, 463
Massoth, N. A., 245
Matsumoto, R., 205
May, R. B., 403
Mayzner, M. S., 79, 159 363
McAdam, D., 89
McCall, R. B., 545, 575
McHose, J. H., 277
McIntire, R. W., 109
McLaughlin, S. C., 69
Meiselman, H. L., 335
Mello, Nancy, 3, 387
Mendelson, J. H., 3, 387
Messick, D. M., 355
Metzger, R., 55
Meyer, M. E., 473
Meyer, Patricia, 381
Mikulas, W. L., 485
Miller, H., 339
Miller, R., 437
Millward, R. B., 431
Milne, D., 395
Mitra, A. K., 83
Moher, R. H., 383
Montague, W. E., 549
Montgomery, T., 143
Moore, J. W., 230, 335, 341, 441, 467
Morgan, R. F., 27, 495
Morgret, M. K., 399
Morin, R. E., 557
Moroney, W., 475
Morra, K., 7
Morrison, J. H., 531
Moscovitch, A., 223
Moyer, K. E., 409, 503
Muir, W. R., 581
Murray, H. G., 439
Muther, W. S., 429
Myers, D. L., 127
Myers, Shirley, 389
N
Nakajo, Holly, 577
Nelson, D., 449
Nelson, P. B., 135
Newman, F. L., 341, 467
Nickerson, R. S., 87
Nilsson, W. D., 79
Noah, J. C., 505
North, J. A., 583
O
Oden, D. L., 11, 33
O'Kelly, L. I., 267
Osborne, J. G., 123
P
Pagano, D. F., 551
Parducci, A., 321
Parker, Linda, 13
Patton, R. A., 195
Pavlik, W. B., 203, 533
Peacock, L. J., 37, 125, 184, 535
Peeke, H. V. S., 187
Pennypacker, H. S., 389
Perkins, C. C., Jr., 539
Pessin, M. S., 245
Peyser, C. S., 277
Pielstick, N. L., 145
Pixley, L., 407
Platt, J. R., 13, 205
Pliskoff, S. S., 109
Pollack, R. H., 65, 351
Pollio, H. R., 265
Pollock, S., 403
Porter, J. J., 257, 531
Poynor, H. B., 515
Price, Aida E., 299
Prokasy, W. F., 349
Pryor, G. T., 273
Purohit, A. P., 477
Q
Quartermain, D., 525
R
Racine, R. J., 285
Ragland, J. B., 117
Ragland, R. S., 117
Randolph, J. J., 227, 411
Ranken, H. B., 459, 461
Raphelson, A. C., 483
Raskin, L. M., 221
Ratner, S. C., 27, 495
Ray, W. S., 567
Reber, A. S., 431
Reese, C., 259
Reinehr, R. C., 169
Remley, N. R., 183
Reynierse, J. H., 129
Reynolds, G. S., 15, 35
Rickard, S., 401
Ridgway, J. E., 109
Rieber, M., 325
Rimbey, Marjorie, 251
Roberts, W. A., 407, 491
Robinson, J. A., 423
Rock, I., 435
Rollins, J. B., 183
Rollins, H. A., 81
Rosen, A. J., 100
Routtenberg, A., 41 282
Runquist, W. N., 51, 579, 581
S
Sandusky, A., 321
Sawrey, J. M., 369, 415
Schade, Alice, 283
Schaeffer, R. W., 377
Schaffer, Amy, 317
Schalock, R. L., 493
Schiffman, H. R., 479
Schiller, P. H., 77
Schneider, A. M., 287
Schoenberg, K. M., 159
Schrier, A. M., 517
Segal, E. M., 155, 451
Segal, Evalyn, 11, 33, 101, 185
Sekuler, R. W., 255
Senkowski, P. C., 257
Sewell, W. R., 95, 411
Shackney, Carolyn, 563
Shelley, H. P., 521
Sheridan, C. L., 303
Sherman, J. A., 489
Shupe, D. V., 494
Simon, Seymore, 55, 345
Sinclair, D., 563
Sitterley, T. E., 425
Smith, K. M., 197
Smith, Marilyn, 77
Smith, M., 91
Smith, N. F., 23
Smith, R. F., 537
Spivey, J. E., 110
Spears, W. C., 553
Spence, K. W., 205, 333
Spigel, I. M., 133, 215
Spreen, O., 547
Squibb, R. L., 173, 175
Stanley, L. R., 263
Steinbrecher, D. C., 121
Sticht, T. G., 425
Storandt, Martha, 245
Storms, L. H., 289
Streufert, S., 249, 324
Strong, P. N. Jr., 19
Strub, H., 25
Sturr, J. F., 327
Stutz, J. Z., 547
Stutz, R. M., 191
Sulzbacher, S., 539
Surridge, C. T., 131, 373
T
Taylor, D. B., 395
Taylor, R. L., 427
Teghtsoonian, Martha, 465

Teghtsoonian, R., 465
Terebinski, S. J., 367
Terman, M., 243
Thiessen, D. D., 1
Thomas, J. R., 217
Thomas, R. K., 183, 184
Thomas, J. R., 489
Thompson, C. I., 481
Thompson, M. E., 519
Thompson, V. E., 381
Thurmond, J. B., 115
Tighe, Louise, 446
Tighe, T. J., 446
Tresselt, M. E., 363, 365, 566
Trychin, S. Jr., 9
Tucker, Robin, 211
Tucker, Ruth, 245
Tulving, E., 337
U
Uno, T., 63
V
Van Mondfrans, A. P., 565
Vanderplas, J. M., 245
Veneruso, Donna, 327
Vernon, C. W., 469
Verrillo, R. T., 73, 171
Vogel, J. R., 261
Voss, J. F., 49
W
Walk, R. D., 9, 301
Wallach, H., 165
Wang, H. S., 461
Warren, J. A., Jr., 297
Warren, Patricia, 557
Watts, Barbara, 49
Webb, W. B., 499
Weber, R. J., 153
Webster, C. D., 291
Weinstock, R., 103
Wenrich, W. W., 383
Wetzel, A. B., 381
White, R. T., 103
Whittleton, J. C., 415
Wike, E. L., 13
Wilkinson, Eileen, 231
Williams, J. R., 353
Wilson, W., 577
Wilsoncroft, W. E., 494
Winnick, Wilma, 247
Winocur, G., 107
Winokur, S., 239
Wischner, G. J., 209
Witte, R. S., 375
Wolin, B. R., 367
Wollen, K. A., 135, 157
Woodburne, L. A., 307, 309
Woodruff, A. B., 145
Wu, R. D., 233
Wyers, E. J., 187
Y
Yarczower, M., 311
Young, R. D., 295
Young, R. K., 139, 474
Z
Zeiler, M. D., 299
Zenhausern, R., 475
Zerbolio, D. J., 129
Zubek, J. P., 359
Zucker, I., 298